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2 March 1960

MEMORANDUM FOR: Chairman, Guided Missiles and Astronautics
Intelligence Committee

SUBJECT : Changes on Draft of NIE 11-60

Attached hereto are our changes on the draft of NIE 11-60.



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CIA Member

Enclosure:
Changes to
Draft of
NIE 11-60

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CHANGE

~~REPAIR~~ SHEET TO DRAFT NIE 11-60

1. Page 1 para 1 line 12 delete "so as to be prepared" and "the ballistic missile truly comes of age". Line 12 add after the word when "ICBMs and IRBMs are available in large numbers".
2. Page 1 para 2 line 2 insert the word "tactical" before aviation
3. Page 1 para 2 delete last sentence.
4. Page 2 delete para 3.
5. Page 2 delete first sentence in para 4. Page 2 para 4 beginning second sentence "The Soviets probably will..... add to end of paragraph 1 on page 1.
6. Page 3 para 4 change last sentence to read will be subsonic and supersonic, with a few of them..... Delete from the same sentence the words "some" and "some of them" and insert the words "a few" after the word with
7. Page 3 para 5 delete the words "increased so as to approach unity" and insert the word "improved" before because of
8. Page 3 para 5 line 7 delete the words "be near unity" and insert the word "improve" before through
9. Page 4 para 6 change first sentence to read "A possible addition..... Delete rest of paragraph beginning sentence 2
10. Add AICBM section from page 11.
11. Page 6 para 8 line 8 change sentence to read beginning "we believe it possible ^{and highly unlikely} that the USSR will develop a new air-to-surface ballistic missile of ...

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12. Page 7 para 10 second line delete the word "the" at end of line.
Change second line to read missile systems from those now available to something approximating the following:

Also change a, b, and c of paragraph 10 to read:

a. A 50-250 n.m. solid propellant missile with small nuclear, HE, CW, or BW warheads and a high order of accuracy.

This system would replace the present SS-1 and SS-2.

b. A 200-800 n.m. solid propellant missile with small nuclear, HE, CW, or BW warheads and a high order of accuracy

This system would replace the present SS-3 and SS-4.

c. A 600-2500 n.m. storable liquid or solid propellant missile with a small nuclear warhead and a high order of accuracy.

This system would replace the present SS-5.

13. Page 7 Para 10 delete last sentence of paragraph.

14. Page 8 Para 11 change to read:

11. Such a new family of surface-to- surface missile systems will be capable of effective coverage of all required ranges. Current surface-to-surface missiles, less nuclear capability, may be employed by satellite countries until the newer missiles are available in sufficient quantity. The new weapons will be inertially guided, and have high reliability by the end of the period. The first two missiles will be mobile and capable of supporting the field forces. The accuracies required will be achievable

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and they can be improved, if necessary, to meet special needs. Simplicity compatible with accuracy will probably be an overriding Soviet design factor. All missiles will have a reaction time of less than 30 minutes (from "fire mission" to launch). The propulsion and guidance systems will permit firing on non-optimum trajectories to obtain re-entry and impact angles from 10 to 80 degrees.

15. Page 9 para 12 last sentence first word should be corrected to read Miniaturization

16. Page 10 para 16 delete from third sentence "reduction in the system costs. Change same sentence to read "with a resultant improvement in operational characteristics".

17. Page 10 para 17 second sentence delete the word "soft"

18. Page 11 para 18 change second sentence to read Currently, the ICBM is available in very small numbers and is inferior to the bomber

19. Page 11 para 18 add to third sentence targets and increasing numbers will be available.

20. Page 12 para 19 change last sentence to read It is possible that development of an anti-missile system for field forces will be within Soviet capabilities, and such a system may be developed in the latter part of the period.

21. Page 12 para 21 insert in the first sentence after the word system "with undetermined capability will be ...

22. Page 13 para 22 first sentence second line delete "will" and add "may" before initiate.

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23. Page 13 para 22 line 12 insert the word "possibly" before becoming available and insert "near the ^{latter part} ~~end~~ of the period" after the word available.

Delete "between 1964 and 1967."

24. Page 14 para 23 line 11 insert "near earth" before anti-satellite and add after the word initially "and being available about 1963-1965."

25. Page 14 para 23 line 15 delete the word "doubted" and insert "but it is believed....."

26. Page 15 para 24 line three insert the word "probable" before the word existing

27. Page 15 para 24 line 12 delete the word "hypergolic" and insert the word "storable" before liquid propellants - *and it could instead of will*

28. Page 15 para 24 delete last sentence of this paragraph

29. Page 15 para 25 line 3 delete the words "two stage" and "800 pound"

30. Page 16 para 25 line 1 change to read "to a range of several thousand n.m. with a high order of accuracy during the latter half of the period."

31. Page 16 para 25 line 2 delete "12 to 16" and insert after the word carry "about a dozen such missiles".

32. Page 16 para 28 delete

33. Page 17 para 29 beginning line 3 change sentence to read "This period should see the emergence of multi-purpose guided missiles that can be employed against tactical air-to-surface missiles and tactical surface-to-surface missiles."

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- 34. Page 17 para 30 delete.
- 35. Page 17 para 31 delete.
- 36. Page 18 para 32 delete.
- 37. Substitute for paragraphs 30,31, and 32 the following "The USSR may evolve an improved ship launched surface-to-surface missile for use against other ships and land targets".

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